



CLOSED CONTAINERS

Technical Guidance Document HW 97-03

The purpose of this guidance document is to describe operational methods and control equipment that can be used by hazardous waste generators to ensure compliance with the "closed container" requirements of 40 CFR Parts 264.173 and 265.173, particularly as these regulations apply to satellite accumulation containers. This guidance will help the generator accomplish the following: maintain compliance with the hazardous waste regulations; be protective of people in the work area; and allow productive industrial processes to continue with the least possible interference.

The federal hazardous waste regulations (40 CFR Parts 264/265.173) state, "A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste."

Common Violations

One of the most common violations of the hazardous waste regulations observed by inspectors is an "open" storage or satellite accumulation container. The following examples describe "open" container violations that have been observed during RCRA inspections:

- An open top drum without a lid or with a lid that is not fastened to the drum.
- A closed top drum with the bungs not securely tightened.
- A flat board laid over the top of an open drum or funnel.

Containers Storing Liquids

A container in a hazardous waste storage area must be closed in a manner that prevents the escape of vapors and/or spillage if the container is tipped or knocked over. When using open top drums, this can be accomplished by clamping or tightly bolting the band that seals the lid to the container. On closed top drums, closing can be accomplished by tightening the bungs securely. Alternatively, and only when the drum is chained or secured as discussed below, the lid may be placed on top without the ring in place as long as there is complete contact with the rim all the way around the top, minimizing the release of vapors. In this situation, the lid must be secured at the end of the work shift. Storage of liquids in open top drums without lids is not acceptable even if the liquid has high viscosity

and/or contains solids which would settle to the bottom.

Many operations require frequent additions of wastes to the container. A number of commercially available devices may be acceptable for closing the container if the devices are properly used and maintained. The generator must decide what equipment is proper for a specific application by balancing concerns for human safety and environmental protection, always issues of primary importance, against the necessities of production.

Spill and splash control equipment can be used to keep the generator in compliance with the regulations and cut production costs due to loss of product or down time for spill remediation.

Funnels can be secured to a drum lid by screwing the funnel into the large bung hole on a closed head drum. In order for a container with a funnel to be considered closed, a lid or flap should be attached to the funnel. The lid or flap must fit tightly against the rim of the funnel to prevent the escape of vapors. If funnels or other control devices are used on the container, the container must be secured with a chain or strap to a wall, building support column, or to other equipment in the area, to prevent the loss of liquids from accidental overturning of the container. In situations where no building support or other equipment is available for drums to be secured to, three or more drums may be strapped together to prevent overturning.

Valve vents and level indicators may be used on containers if the containers are closed after the addition of liquids. The use of level indicators may prevent the overfilling of a container that could result in unsafe working conditions and a costly cleanup.

Containers Storing Solids

Solid hazardous wastes usually present a much easier management problem than do liquids. For solids that emit no vapors, the container may be covered with a lid without the ring in place as long as there is complete contact between the lid and the rim all the way around the top. These containers must be closed and sealed at the end of the work shift. The lid should be closed by bolting the band that seals the lid to the container or with a band that is tightened with a lever. For solids that emit vapors, the same “closed container” controls outlined in the “**Liquids**” section of this guidance must be put in place.

Roll-Off Containers

Roll-off containers pose their own problems regarding proper closure. Roll-off containers are primarily used for storage and transportation of solids or sludges. Some roll-off containers are manufactured with lids that open and close. When these lids are closed tightly with a good seal around the rim, the container is considered closed. Roll-off containers with lids must be used for wastes that contain volatile organic vapors (VOCs). However, most roll-off containers have an open top. In cases where the waste is a non-VOC solid or sludge, a tarp that is tightly secured to the container is considered a closed container.

Other Containers

Other types of containers such as bags, boxes, and small containers must be used according to the kind of waste that is to be placed into them. The container is considered to be closed when it is sealed to the extent necessary to keep the hazardous waste and any emissions inside the container. For example, bags are sometimes used to store waste paint filters. The bag is closed when the neck of the bag is tightly bound. This practice is acceptable for dry paint filters but not for wet filters. For wet paint filters containing VOCs, the bag would have to be lined with plastic and the neck of the bag would have to be closed to the extent that would prevent the release of the VOCs in order to be a “closed container” according to the regulations.

Subpart CC

On December 6, 1996, a final rule went into effect amending standards first published by the EPA in the ***Federal Register*** (59 FR 62896, December 6, 1994). These standards, known as the “Subpart CC” standards due to their inclusion in Subpart CC of Parts 264 and 265 of the RCRA subtitle C regulations, apply to hazardous waste Treatment, Storage and Disposal (T/S/D) facilities and EPA Generators. These standards, as in effect on July 1, 2000, have been adopted by reference into the Kansas Hazardous Waste Management regulations effective September 20, 2002.

The following list shows the major elements of the “Subpart CC” regulations as they apply to containers (40 CFR 264.1086 and 265.1087). This list is by no means complete and a careful study of the entire regulation should be made by those facilities affected. It is included here for the benefit of those that may find this information helpful in achieving compliance with the “closed container” requirement.

- The generator shall place hazardous waste into a container that is equipped with a cover which operates with no detectable organic emissions when all container openings (e.g., lids, bungs, hatches, and sampling ports) are secured in a closed, sealed position.
- Each container opening shall be maintained in a closed, sealed position (e.g., covered by a gasketed lid) at all times except when it is necessary to have it open during procedures to: add, remove, inspect or sample the material in the container; inspect, maintain, repair, or replace equipment located inside the container; or, vent gases or vapors to a closed-vent system.
- One or more safety devices that vent directly to the atmosphere may be used on the container provided the safety device is not used for planned or routine venting and the safety device remains in a closed sealed position at all times except when an unplanned event requires the device to be open.

Question regarding “closed containers” should be directed to the Waste Reduction, Compliance & Enforcement Section, Bureau of Waste Management at (785) 296-1604 or (785) 296-1603 or the address at the top of this document, or visit the Bureau’s website at www.kdhe.state.ks.us/waste.